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Unterhaltungselektronik

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Hamburg

Service
Service
Service

Service Manual

SRR2456 TV – STR415 TV

Die gelieferte Ware bleibt bis zur restlosen Bezahlung unser Eigentum · Erfüllungsort und Gerichtsstand Hamburg

Bankverein Bremen AG
Kto.-Nr. 103929 (BLZ 290 201 00)

Commerzbank AG
Kto.-Nr. 118 205 400 (BLZ 200 400 00)

Dresdner Bank AG
Kto.-Nr. 552 480 500 (BLZ 200 800 00)

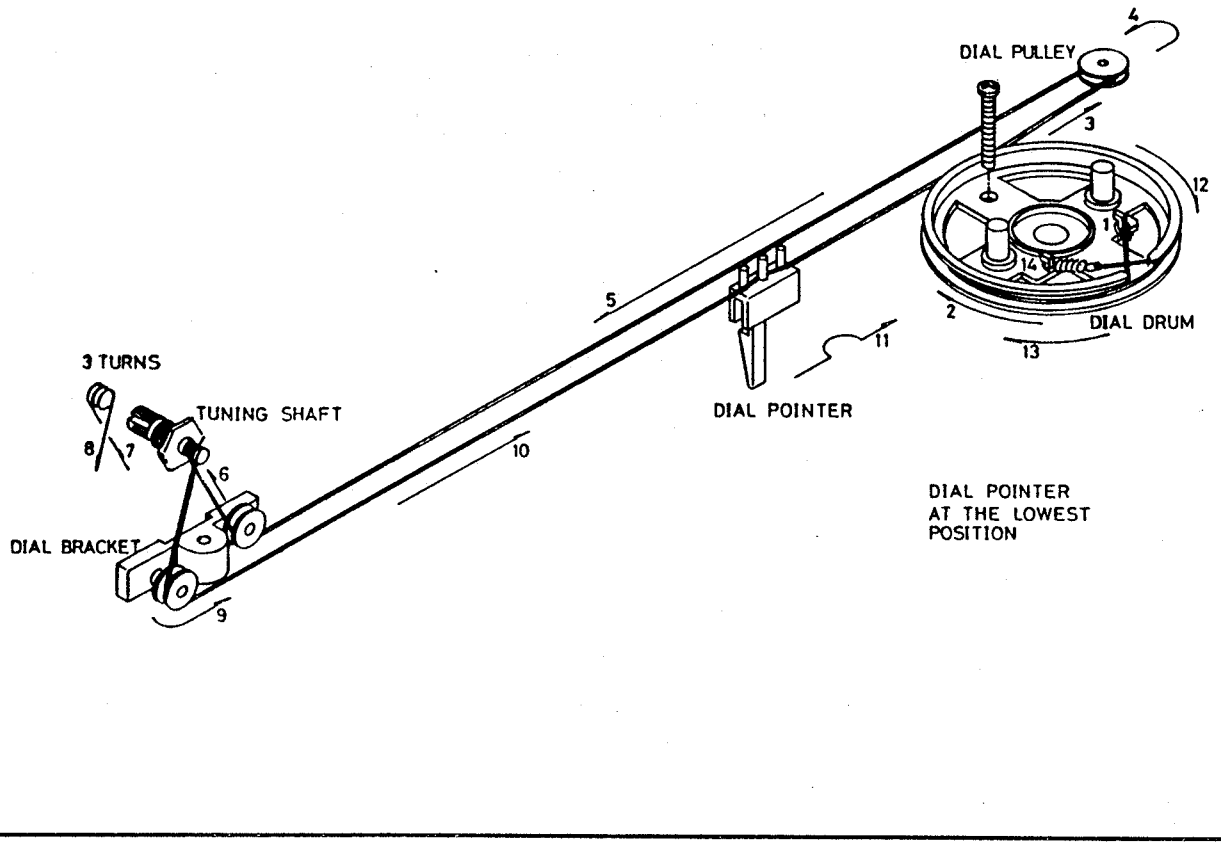
Hamburger Sparkasse
Kto.-Nr. 1032/211 441 (BLZ 200 505 50)

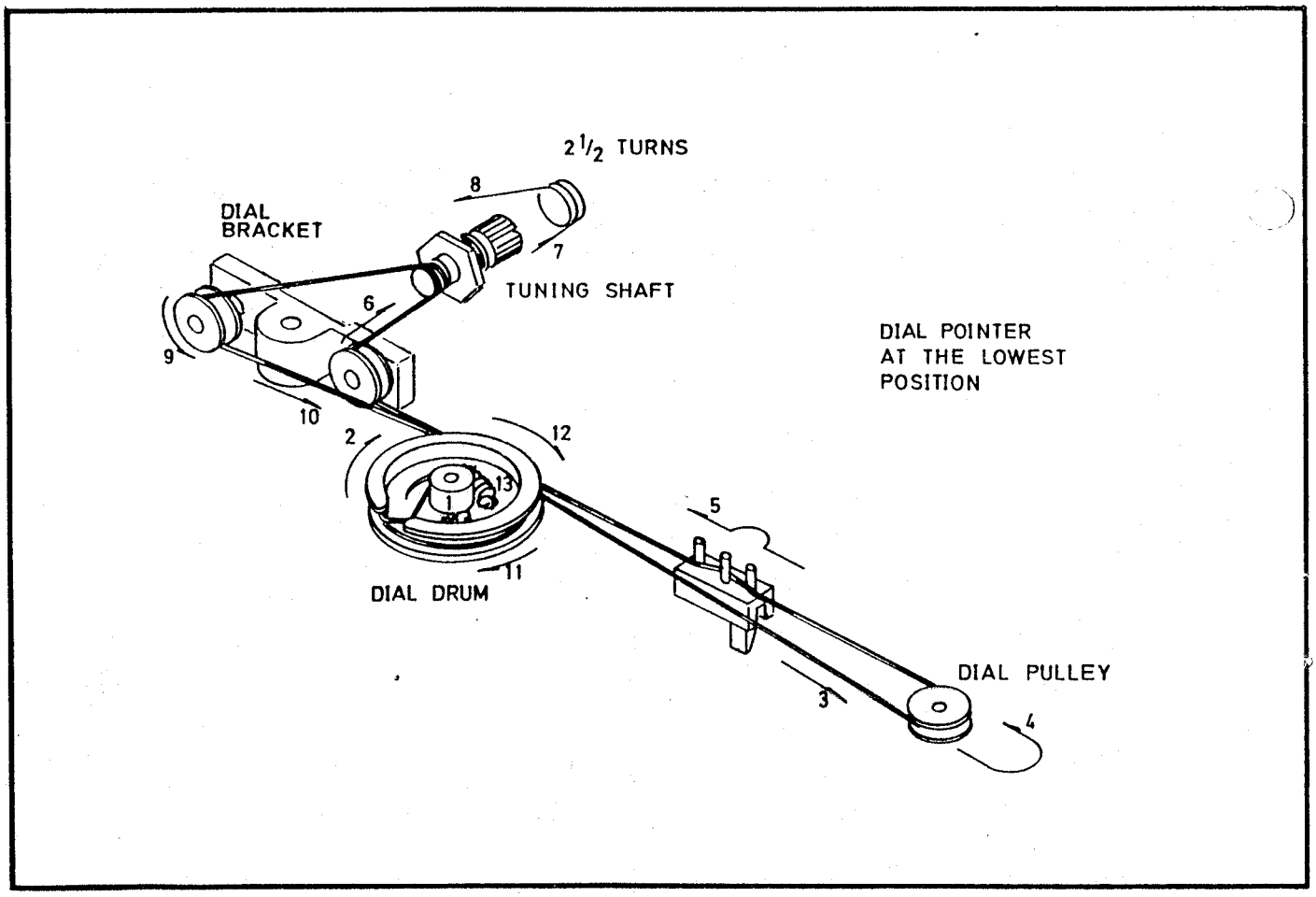
Norddeutsche Genossenschaftsbank AG
Kto.-Nr. 681130 (BLZ 200 900 00)

Bankhaus Wölbern & Co
Kto.-Nr. 2185008 (BLZ 200 309 00)

Postgiroamt Hamburg
Kto.-Nr. 3853-45 (BLZ 200 100 20)

Geschäftsführer: Ralf Trautwein
Handelsregister Hamburg HR B 31002


DIAL PULLEY
4
3
12
1
14
2
DIAL DRUM
13
5
11
DIAL POINTER
3 TURNS
TUNING SHAFT
8
7
6
10
DIAL BRACKET
9
DIAL POINTER
AT THE LOWEST
POSITION


2 1/2 TURNS
8
DIAL
BRACKET
7
TUNING SHAFT
6
9
DIAL POINTER
AT THE LOWEST
POSITION
10
2
12
13
1
5
11
DIAL DRUM
DIAL PULLEY
3
4

ALIGNMENT INSTRUCTION

I. TEST EQUIPMENT

1. VIF Sweep Generator
2. SIF Sweep Generator
3. Continuous Wave Form Generator
4. Monoscope Pattern Generator
5. DC Power Supply (10.2V)
6. Oscilloscope
7. Vacuum Tube Volt Meter
8. Volt Ohm Meter
9. High Voltage Meter

II. VIF AND TANK COIL ALIGNMENT (SEE FIG. 2)

A. Preparation Step

1. Turn the RF AGC Control fully counter clockwise.
2. Supply AGC bias voltage to TP304 (See Fig. 1)
3. Connect Output lead of VIF Sweep Generator to TP305 and GND.
4. Connect lead from DET between-TP306 and GND.
5. Supply DC10.2V ⊕ lead to C351 ⊖ lead to GND.

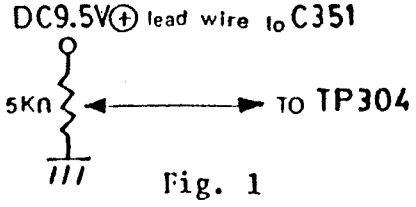


Fig. 1

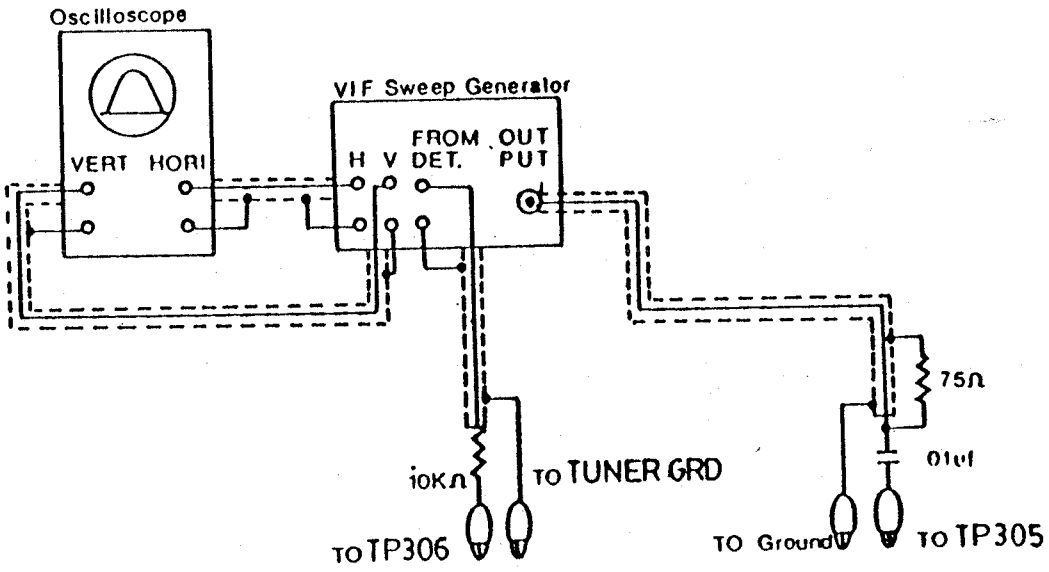


Fig. 2

B. Alignment Step

1. Adjust AGC bias voltage for max. amplitude of Waveform.
2. Adjust the level of sweep generator to achieve 1Vp-p output.
3. Increase the output level of sweep generator in 20 dB.
4. Adjust AGC bias voltage to achieve 1Vp-p output (On Oscilloscope).
5. Adjust T302 to obtain the waveform as in FIG. 3.
6. Connect resistor (100 Ohm) between TP 302 and TP 303
7. Adjust Tuner IF output coil to obtain the waveform as in FIG 4.

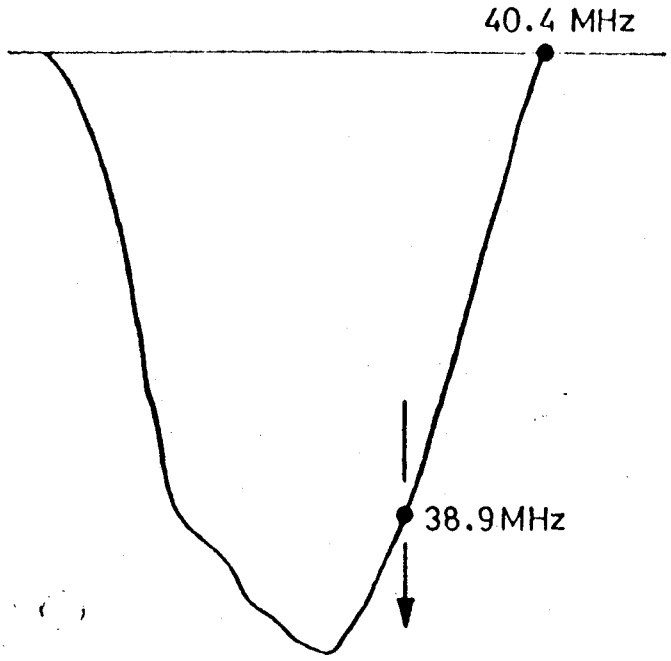


Fig. 3

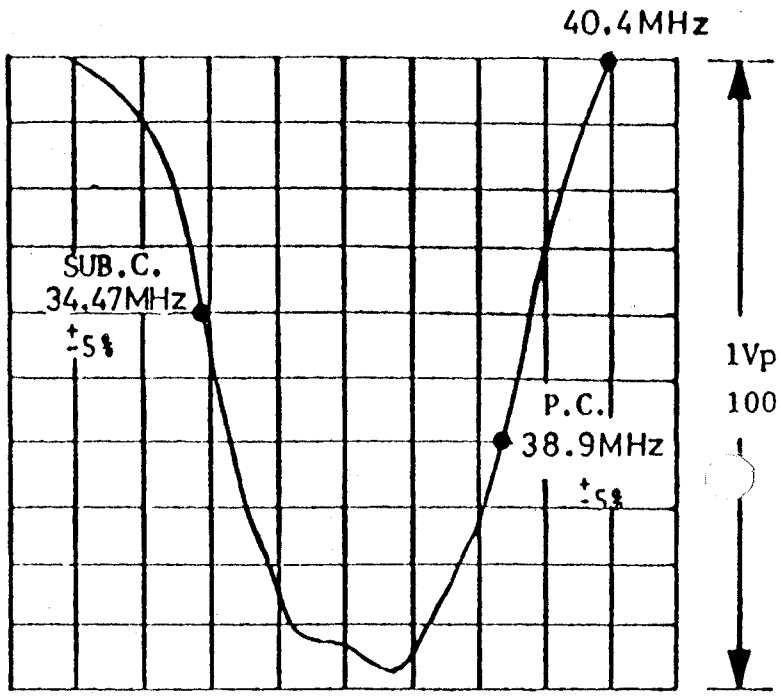


Fig. 4

III. SIF Alignment

A. Preparation Step (SEE FIG. 5)

1. Connect output lead of SIF Sweep Generator between TP 301 and GND.
2. Connect lead of From DET between TP 307 and GND.
3. Supply DC10.2V ⊕ lead to C351 ⊖ lead to GND.

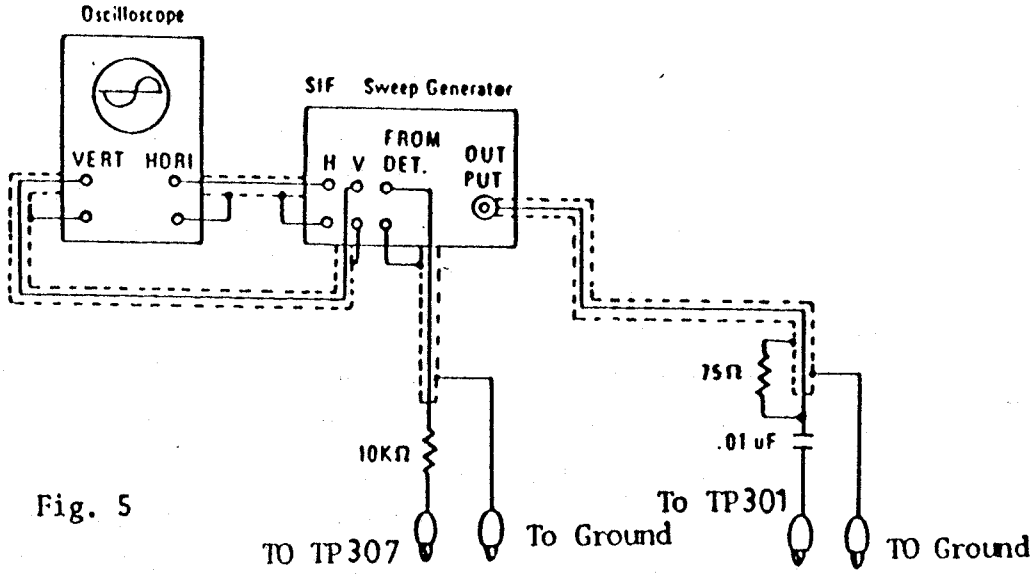


Fig. 5

B. Alignment Step

1. Adjust Output of Sweep Generator to achieve 4Vp-p between markers of 100 KHz.
2. Adjust T301 until sound carrier is centered as in Fig. 6.

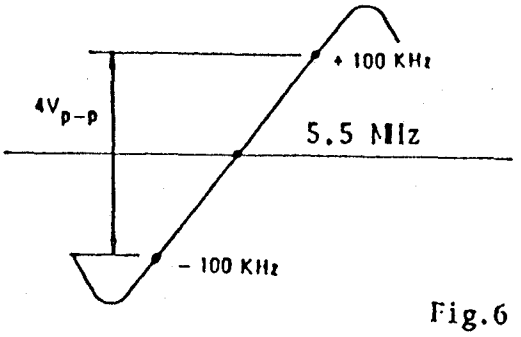


Fig.6

V. B ⊕ Adjustment.

Test Equipment used: Digital Meter.

1. Connect the Digital Volt Meter lead on TP401 and GND.
2. Adjust Semi-Fixed Resistor VR401 until meter reading DC 9.5 Volt.

V . Horizontal Circuit Alignment.

1. Set the channel selector to signal channel.
2. Connect the 100 mfd between IC301 Pin 6 and GND.
3. Adjust H. Hold control (VR301) to the Normal Picture..

VI . Vertical Circuit Adjustment.

1. Set the channel selector to signal channel.
2. Adjust V. Hold (VR303) TO Normal Picture.
3. Receive test pattern.
4. Adjust V. Height control to obtain a normal picture.

VII . RF AGC Alignment.

1. Receive the signal of UHF High Channel.
2. Set the Input field strenght in 60 dB $\pm$ 3 dB.
3. Adjust RF AGC control VR 304 to the point where noise is disappeared.
4. Set the input field strength in 90 dB. Do not overload.

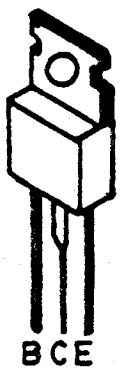
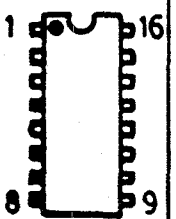
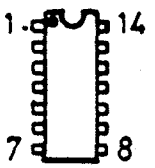
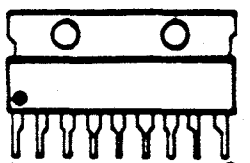
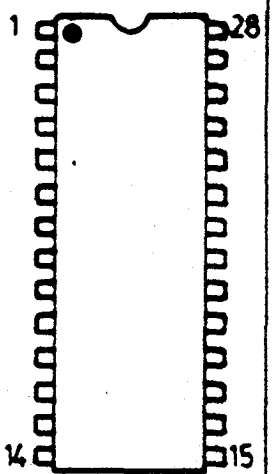
VIII . Local OSC Adjustment.

1. Set the TV Channel Selector Switch to UHF position Select a numeral of 69 channel for CCIR-B/G on the dial with the TV Tuning. Adjust the Semi-Fixed Resistor VR 307 to receive the pattern Signal with a superior point of picture.

X. Pattern Adjustment.

1. Under the unit is operating with rated power supply voltage, set the brightness and contrast controls to maximun position.
2. Set the V-Hold (VR303) to Normal picture.
3. Adjust the centering magnets to which the picture is positioned at 2mm right to a geometrical center of the CRT.
4. Pattern size is adjust with Semi-Fixed Resistor VR 302

TRANSISTOR AND IC IDENTIFY

								
2SA 719 2SC 828 2SC 1317 2SC1685	2SC1360 2SC1573	2SC930	SD804(H)P	BD435	LA1260 LA3316	AN7312	LA 4260	AN5151

VOLTAGE TABLE FOR IC

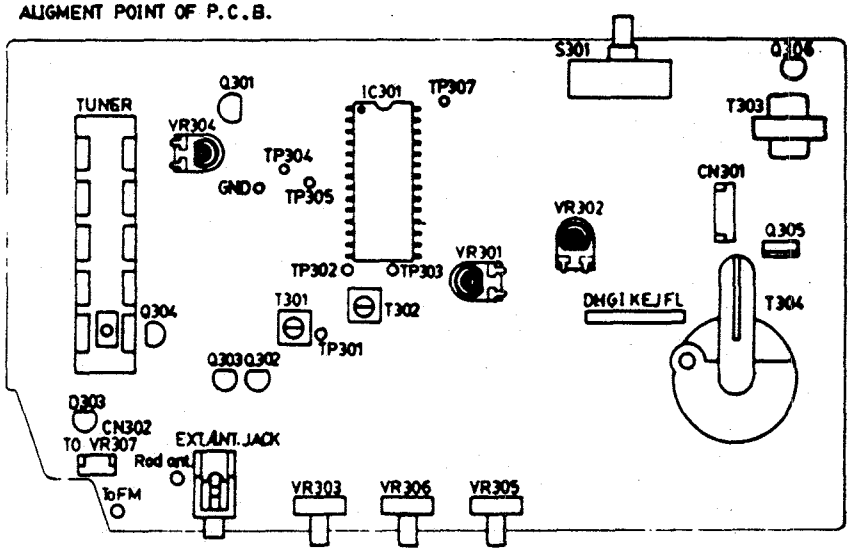
SYMBOL	IC101 (V)		IC102 (V)		IC201 (V)		IC202 (V)		IC301 (V)		
PIN NO	AM	FM	AM	FM	P	R	P	R	TV		
1	1.02	1.47	8.9	8.9	0	0	0.6	0.6	4.8		
2	1.02	1.47	2.34	2.3	0	0	0	0	5.8		
3	1.02	1.47	1.67	1.7	0	0	14.7	14.8	2.1		
4	0	0	1.14	1.14	4.2	4.1	0	0	6.1		
5	7.57	7.33	1.68	1.68	1.36	1.36	0.011	0.06	3.7		
6	7.57	7.33	0.7	7.6	1.3	1.3	0.6	0.6	6.2		
7	0.86	0.59	0	0	0	0	7.3	7.4	3.1		
8	1.57	1.59	0.4	0.42	0	0	0	0	3.1		
9	1.39	1.4	0.3	0.3	1.3	1.3	14.9	14.9	4.8		
10	1.02	1.47	1.37	1.37	1.36	1.36	7.5	7.5	4.8		
11	0.7	0.74	1.38	1.37	4	4			2.1		
12	7.57	7.33	0.08	1.03	0	0			9.3		
13	1.28	0	1.38	1.38	8.11	7.97			3.4		
14	1.28	0	1.38	1.38	8.15	8			6.5		
15	2.24	2.3	1.38	1.38					6.5		
16	2.23	2.3	0.13	0.82					9.7		
17									1.3		
18									5.4		
19									5.6		
20									9.6		
21									0		
22									3.2		
23									1.3		
24									4.9		
25									0.4		
26									3.1		
27									0		
28									4.9		

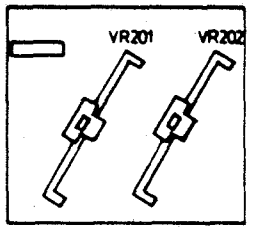
NOTES: 1. SUPPLY DC 15 V FROM REGULATED DC POWER SUPPLY.

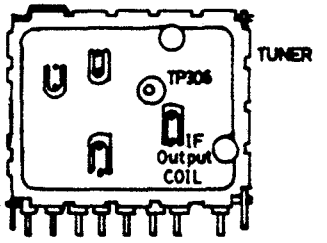
2. TV, AM AND FM NO SIGNAL INPUT. VOLUME POSITION MINIMUM.

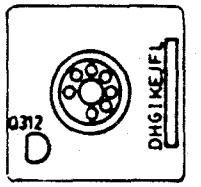
3. MEASURED VALUES ARE TAKEN BY DIGITAL VOLT METER WITH 10M OHM PER VOLT.

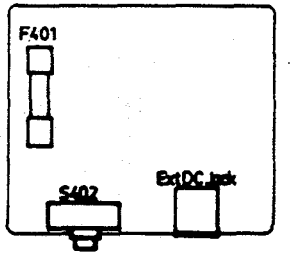
ALIGMENT POINT OF P.C.B.

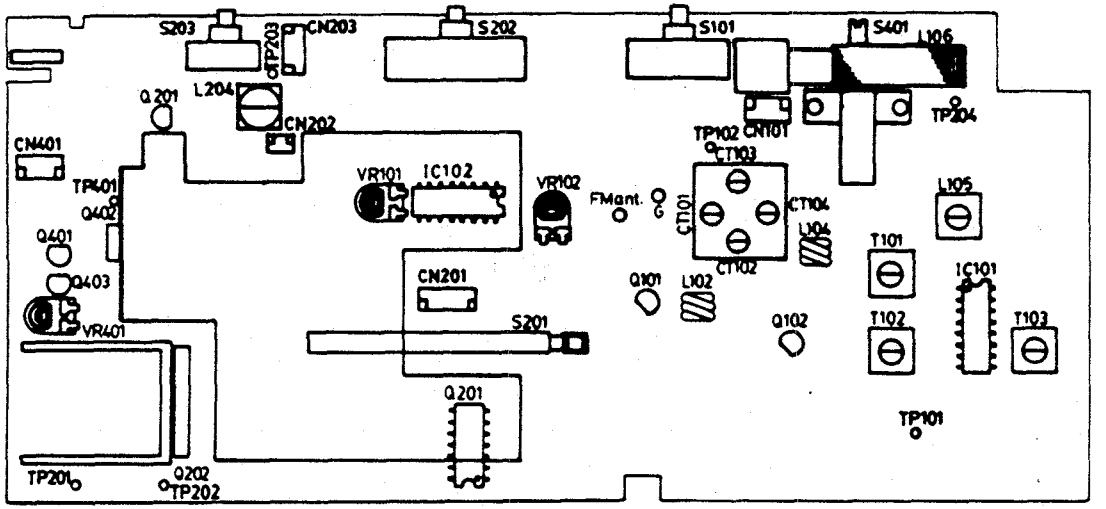




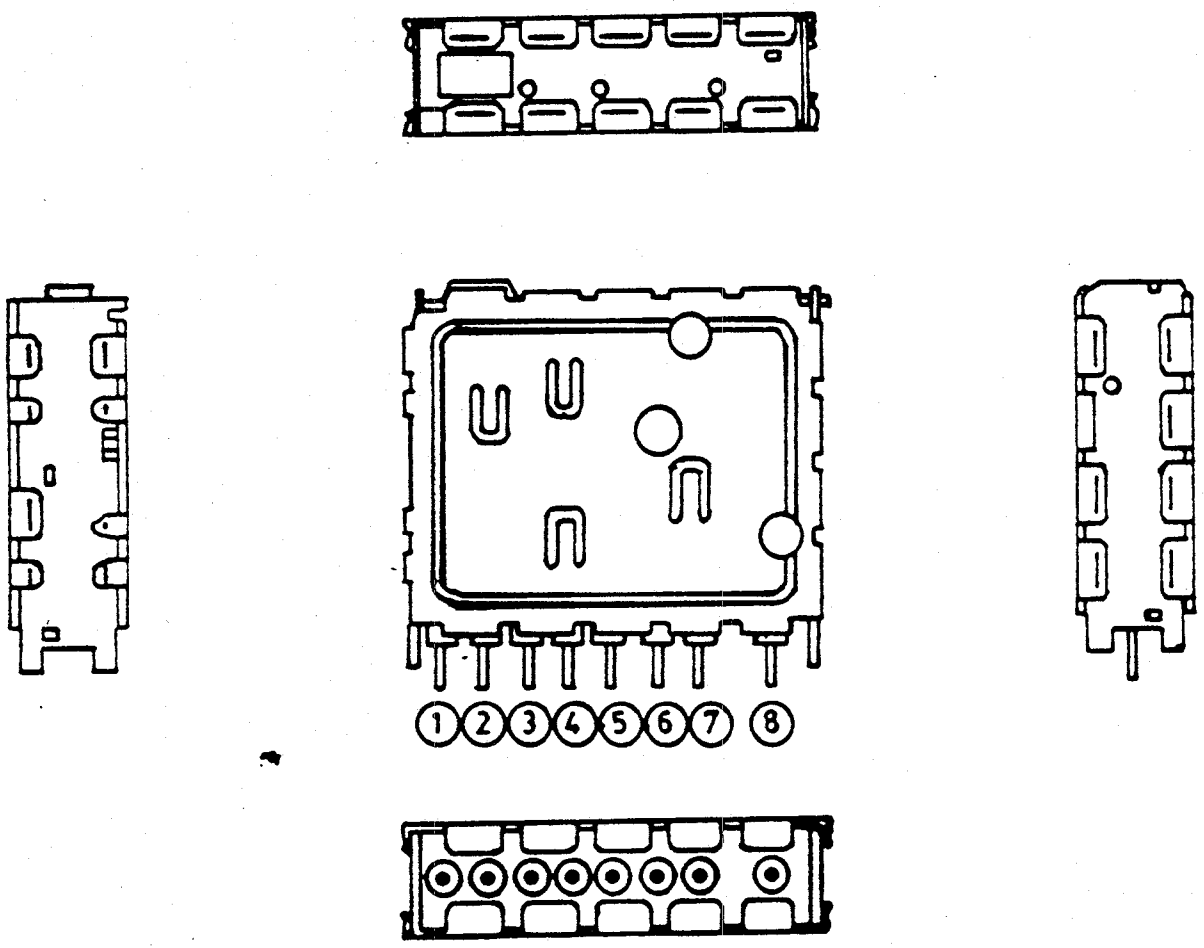








PICTORIAL VIEW TUNER



TERMINAL NO	1	2	3	4	5	6	7	8
NAME	V/U ANT	VT	BH	AGC	BL	BU	BM	IF

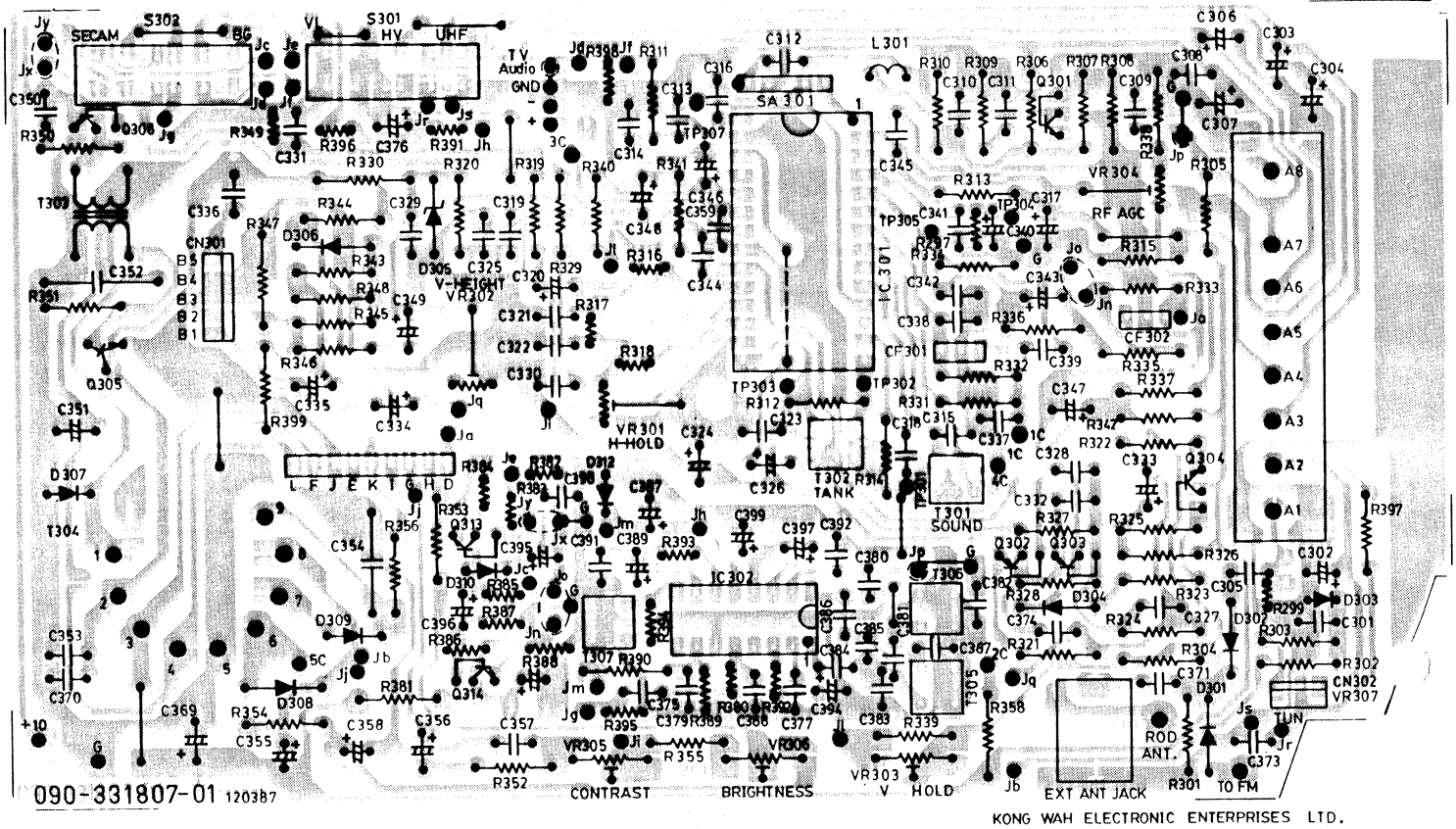
VOLTAGE TABLE FOR TRANSISTOR

SYMBOL	PIN		
	B (V)	C (V)	E (V)
Q 101	1.37	7.94	0.68
Q 102	1.38	8.15	0.72
Q 201	0.523	5.91	0.04
Q 301	2.6	9.4	1.8
Q 302	5.7	GND	5.5
Q 303	0:8	5.6	GND
Q 304	0.1	9.8	5.7
Q 305	0.2	9.6	0
Q 306	0.5	9.1	0
Q 307	0.8	8.6	0.6
Q 308	0.6	0.1	GND
Q 309	1.1	GND	0.2
Q 310	0.1	6	GND
Q 311	0.6	0	GND
Q 312	3.2	32.5	3
Q 401	10.3	15	9.8
Q 402	9.6	15	10.2
Q 403	6.5	10.3	6.5

NOTE :

VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

CONTRAST : MAXIMUM POSITION
BRIGHTNESS : CENTER POSITION
SIGNAL INPUT : 80 dB μV
CHANNEL SETTING : THE LAST CHANNEL OF VHF HIGH


090-331807-01 120387
KONG WAH ELECTRONIC ENTERPRISES LTD.
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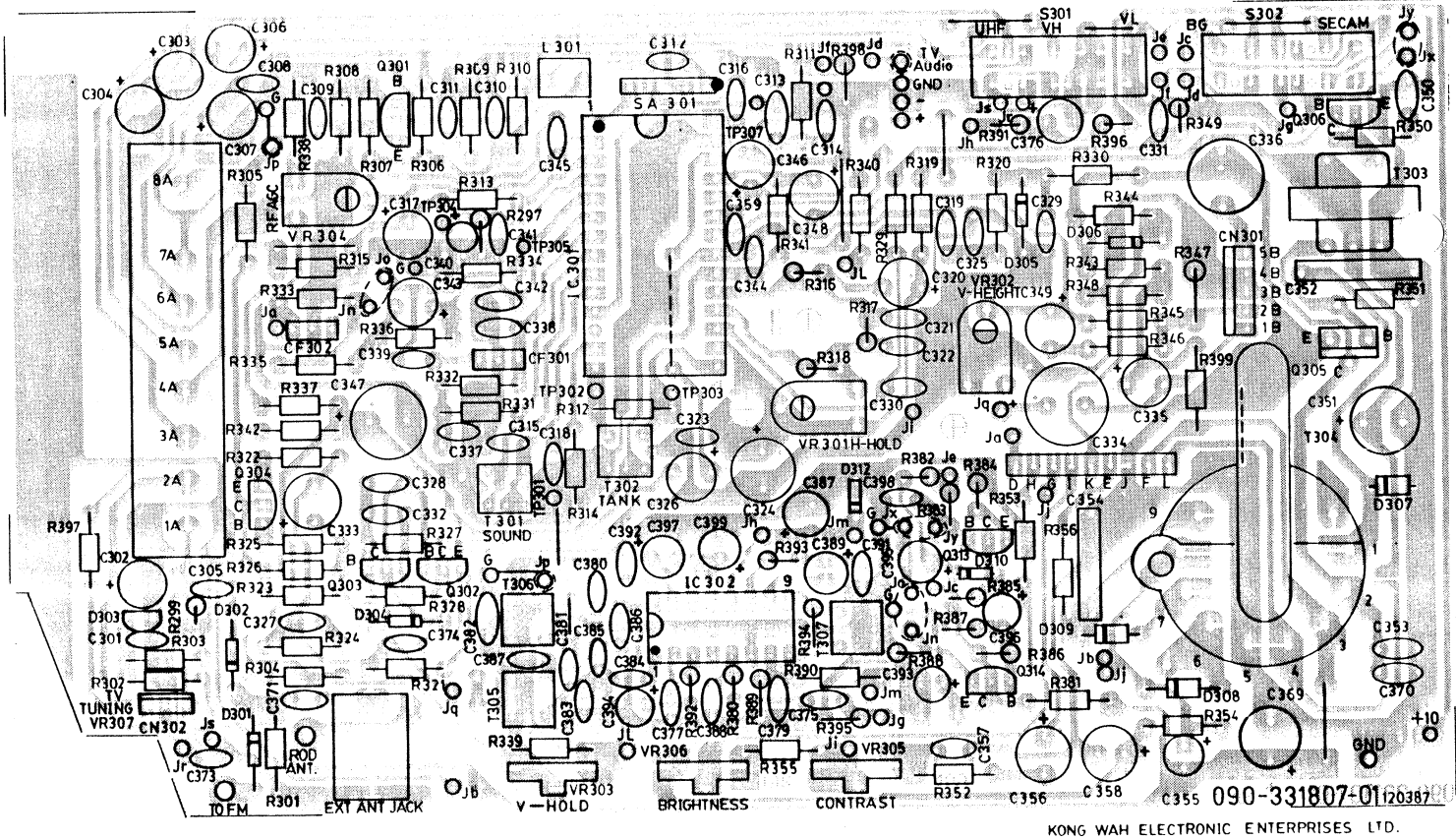
SCALE 2 : 1
DATE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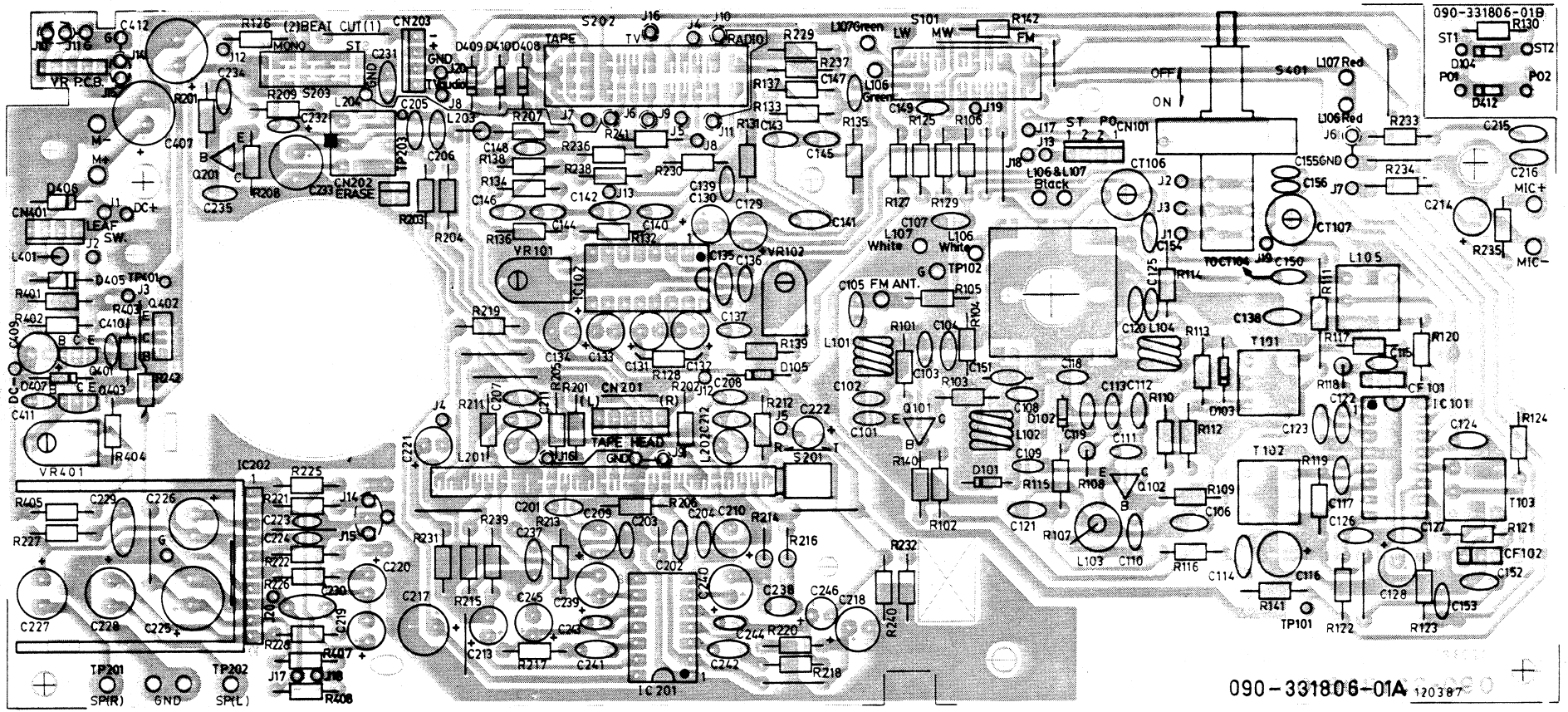
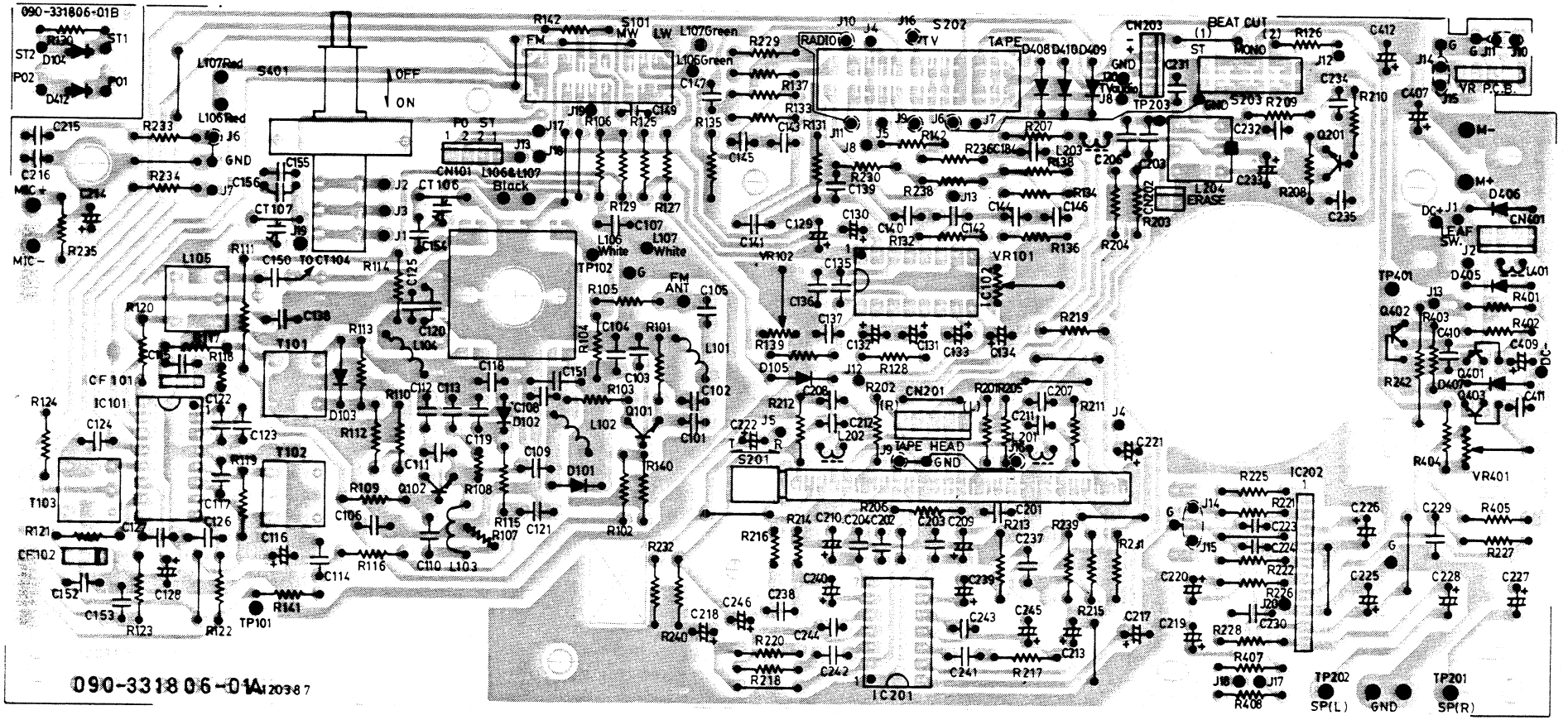


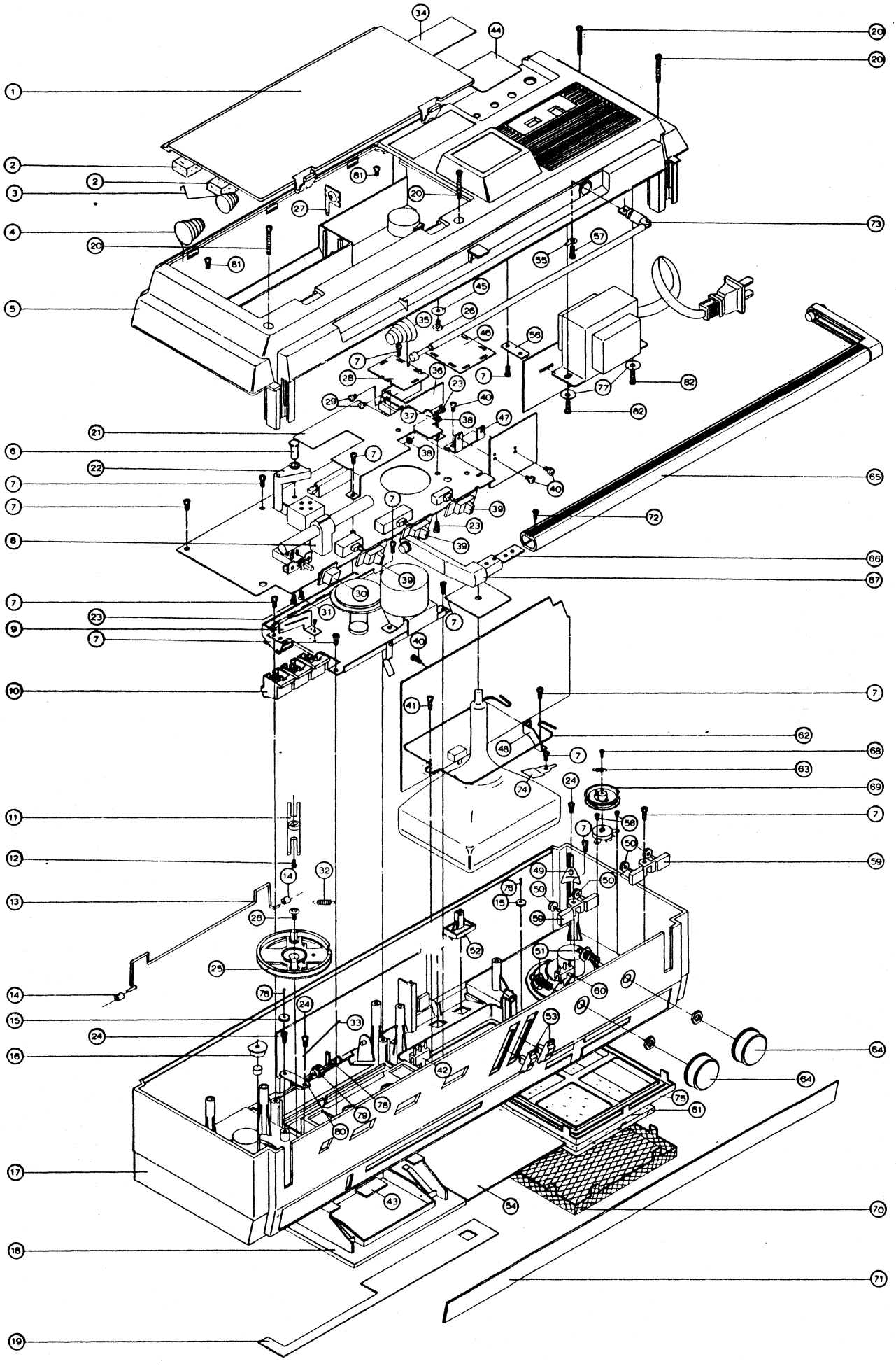
KONG WAH ELECTRONIC ENTERPRISES LTD.

MODEL NO	3 3 1 8
SCALE	2 : 1
DATE	1 — 3 — 87



KONG WAH ELECTRONIC ENTERPRISES LTD.
MODEL NO : 3 3 1 8
SCALE 2 : 1
DATE 12-3-87

THE EXPLODED VIEW OF MODEL K-3318



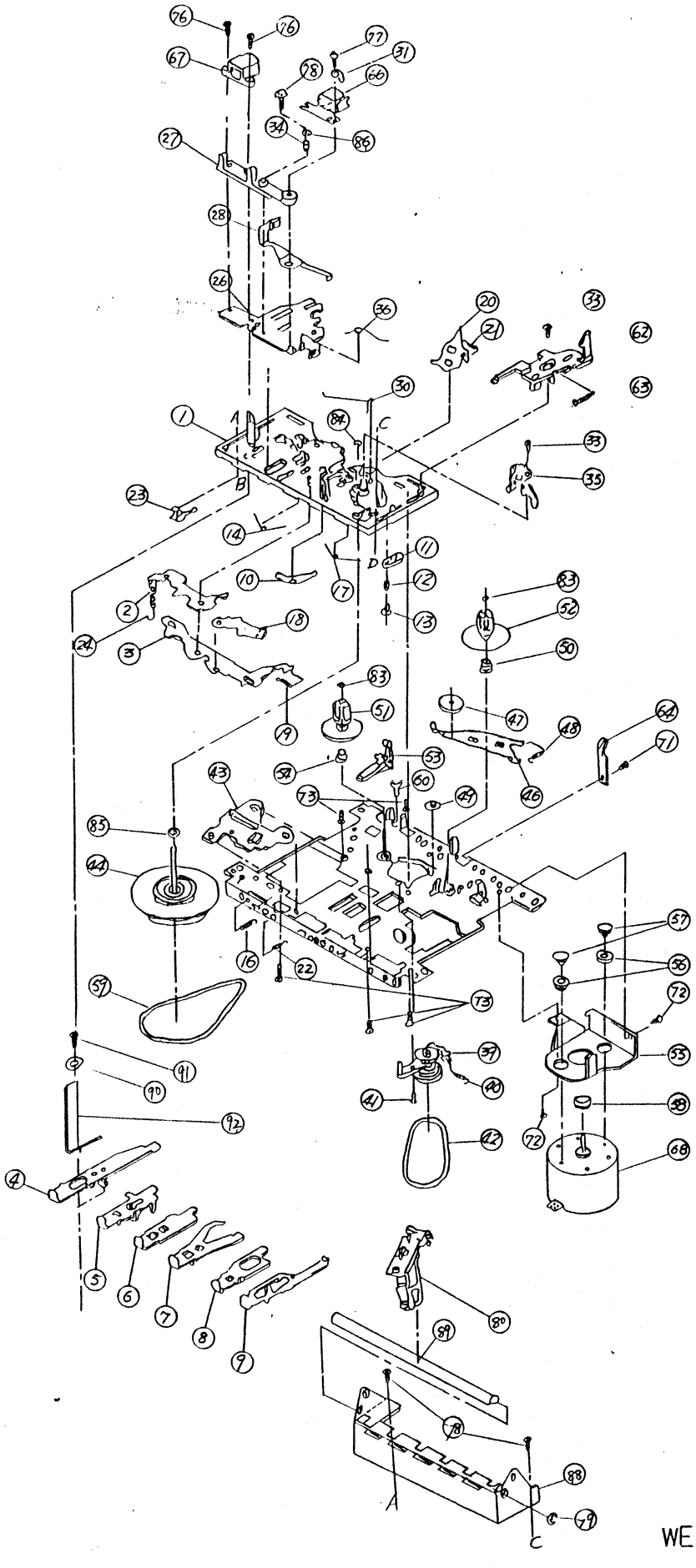
ITEM	PART NUMBER	DESCRIPTION	QTY
1.	210-331801-01	BATTERY DOOR	1
2.	321-901105-01	BATTERY SPONGE	2
3.	474-330201-01	BATTERY SPRING COMMON 'A"	1
4,	474-330901-01	BATTERY CONTACT SPRING '-VE'	1
5.	202-331801-01	CABINET BACK	1
6.	438-330101-01	CRANK ARM SHAFT	1
7.	610-300210-10	SELF-TAPPING SCREW R/T 3x10mm	12
8.	251-331001-01	ANTENNA BAR HOLDER	1
9.	420-331801-01	RECORDING BRACKET	1
10.	272-331801-01	CASSETTE KNOB	6
11.	239-330302-01	ADAPTOR	1
12.	600-264506-10	MACHINE SCREW P/H 2.6x6mm	1
13.	469-370502-01	CABINET STAND	1
14.	330-370501-01	RUBBER FOOT	2
15.	243-701201-01	DIAL PULLEY	2
16.	320-701201-01	MIC CUSHION	1
17.	200-331801-01	CABINET FRONT	1
18.	211-331602-11	CASSETTE DOOR	1
19.	418-331801-01	DECK FUNCTION PLATE	1
20.	610-300225-10	SELF-TAPPING SCREW R/T 3x25mm	4
21.	481-331801-01	HEAT SINK 'A'	1
22.	247-331601-01	REC. ARM	1
23.	600-305008-10	MACHINE SCREW P/H 3x8mm	3
24.	612-300208-10	SELF-TAPPING SCREW W/T 3x8mm	9
25.	242-330302-01	DIAL DRUM	1
26.	615-300210-10	SELF-TAPPING SCREW B.W/T 3x10mm	2
27.	472-330101-01	BATTERY CONTACT PLATE '+VE'	1
28.	534-331801-01	FIBER PLATE FOR BATTERY	1
29.	608-264504-10	MACHINE SCREW T.P/H 2.6x4mm	2
30.	291-331801-01	PUSH KNOB	1

ITEM	PART NUMBER	DESCRIPTION	QTY
31.	601-264505-10	MACHINE SCREW K/H 2.6x5mm	2
32.	477-331601-01	DIAL SPRING WIRE	1
33.	471-331602-01	CASSETTE EJECT SPRING WIRE	1
34.	412-331801-01	MODEL PLATE	1
35.	474-701201-01	BATTERY CONTACT SPRING 'COMMON'	1
36.	481-331802-01	HEAT SINK 'B'	1
37.	634-125032-10	PLANE WASHER	1
38.	620-305025-55	STEEL NUT M3	2
39.	278-331801-01	SLIDE KNOB	3
40.	600-305006-10	MACHINE SCREW P/H 3x6mm	4
41.	615-300214-10	SELF-TAPPING SCREW B.W/T 3x14mm	1
42.	240-331801-01	DIAL POINTER 'A'	1
43.	409-701201-01	TAPE INDICATING	1
44.	412-331802-01	TV BACK PLATE	1
45.	530-160033-08	FIBER WASHER	1
46.	534-701201-01	FIBER COVER	1
47.	428-331802-01	VOULME BRACKET	1
48.	428-320201-01	PCB BRACKET	1
49.	462-018101-01	SPEAKER CLIP	6
50.	435-701201-01	BRASS PULLEY	4
51.	430-028801-01	TUNING SHAFT W/NUT	2
52.	278-331802-01	SLIDE KNOB	1
53.	273-331801-01	VOLUME KNOB	2
54.	263-331801-01	TV FRONT LENS	1
55.	450-701201-01	SOLDERING LUG	1
56.	428-331803-01	PCB MTG PLATE	1
57.	610-300212-10	SELF-TAPPING SCREW R/T 3x12mm	1
58,	610-200206-10	SELF-TAPPING SCREW R/T 2x6mm	2
59.	226-331801-01	DIAL BRACKET	2
60.	240-331802-01	DIAL POINTER 'B'	1

MODEL: 3318

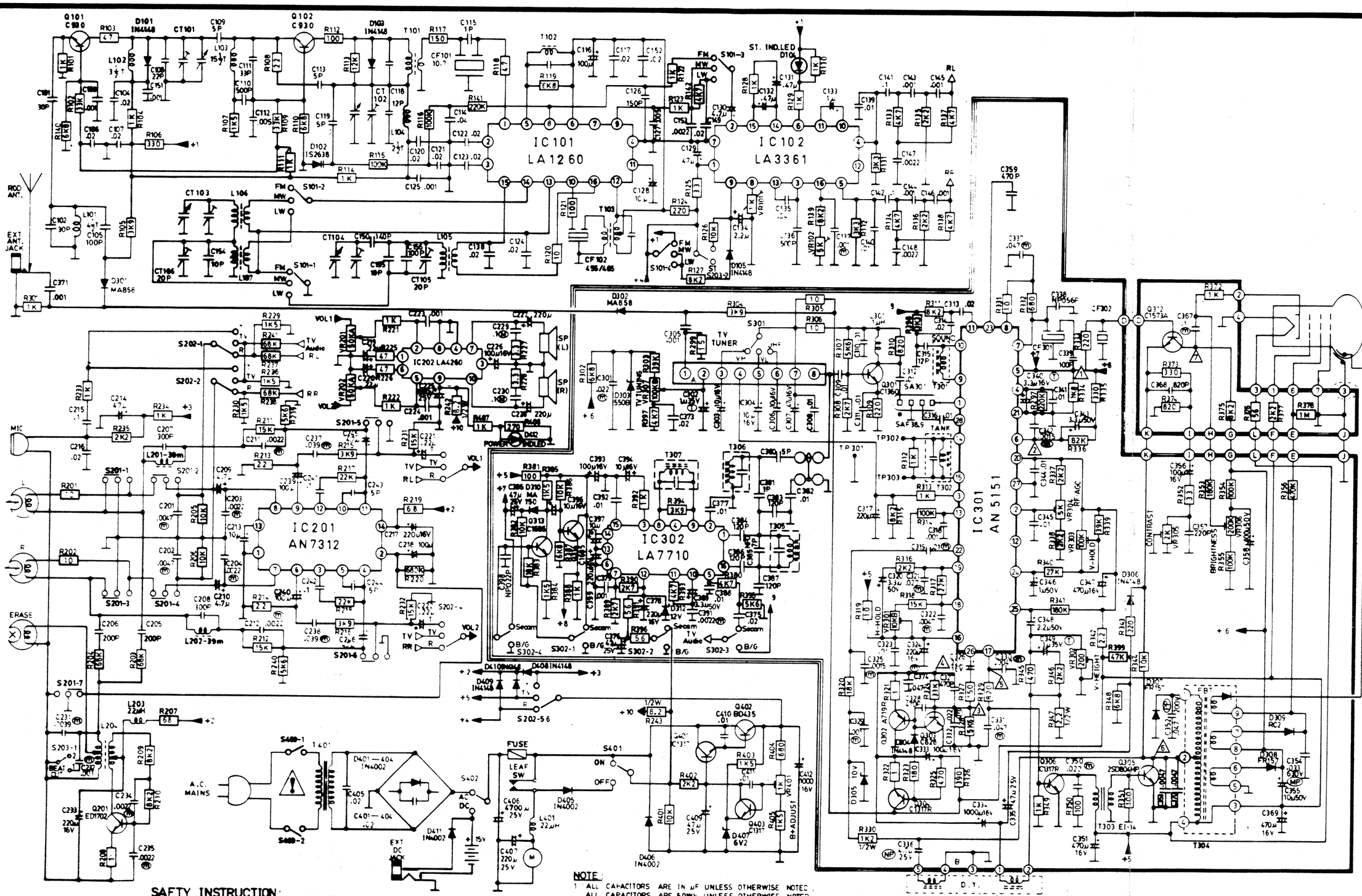
ITEM	PART NUMBER	DESCRIPTION	QTY
61.	323-331801-01	SPEAKER SPONGE	2
62.	469-370501-01	CRT MTG HOLDER	1
63.	477-370502-01	DIAL SPRING FOR TV	1
64.	270-331601-01	TUNING KNOB	2
65.	246-331601-01	HANDLE BAR	1
66.	428-330102-01	HANDLE MOUNTING BRACKET	2
67.	245-330101-03	HANDLE ARM	2
68.	600-173504-10	MACHINE SCREW P/H 1.7x4mm	1
69.	242-331801-01	DIAL DRUM (TV)	1
70.	403-331801-01	SPEAKER GRILL	2
71.	260-331801-01	DIAL LENS	1
72.	601-264510-00	MACHINE SCREW K/H 2.6x10mm	2
73.	482-305250-01	ROD ANTENNA	1
74.	478-370501-01	CONTACT PLATE FOR CRT	1
75.	232-331801-01	SPEAKER RING	2
76.	431-701201-01	PULLEY SHAFT	2
77.	634-200035-10	PLANE WASHER	2
78.	438-331801-01	GEAR SHAFT 'BRASS'	1
79.	288-331802-01	RETARDATIOR GEAR	1
80.	428-331801-01	GEAR BRACKER	1
81.	614-300214-10	SELF-TAPPING SCREW B/T3x14mm	2
82.	614-350216-10	SELF-TAPPING SCREW B/T 3.5x16mm	2

MODEL PW-21SC



NO	品名	型號	備註
1	BASE	21-234	1
2	SWITCH ACTUATOR	21-058	1
3	BUTTON ACTUATOR	21-055	1
4	REC BUTTON LEVER	21-037	1
5	PLAY BUTTON LEVER	21-038	1
6	RWD BUTTON LEVER	21-039	1
7	F.F. BUTTON LEVER	21-040	1
8	STOP BUTTON LEVER	21-041	1
9	PAUSE BUTTON LEVER	21-042	1
10	RWD LEVER	21-059	1
11	PAUSE LEVER	21-202A	1
12	PAUSE LEVER SP.	21-303	1
13	PAUSE STOPPER	21-203	1
14	BUTTON LEVER SP.	21-326	1
15			
16	BUTTON LEVER SP(A)	21-301	1
17	(F)	21-325	1
18	KICK LEVER	21-036	1
19	ACTUATOR SP.	21-305	1
20	AUTO. LEVER	21-031	1
21	AUTO LEVER SP.	21-304	1
22	PLAY BUTTON LEVER SP.	21-317	1
23	LEAF SWITCH	21-701	1
24	SW. ACTUATOR SP.	21-321	1
25			
26	HEAD PANEL	21-002	1
27	HEAD BASE	21-240	1
28	SENSWOT PLATE	81-021A	1
29			
30	HEAD PANEL SP.	21-378	1
31	EARTH PLATE	338-048	1
32			
33	PMF SCREW	21-803	2
34	AZIMUTH SP.	21-307	1
35	PINCH ROLLER ARM	21-009	1
36	PINCH ROLLER SP.	21-823	1
37			
38			
39	R.F. PULLEY ARM	21-372	1
40	R.F. ARM SP.	21-810	1
41	R.F. ARM SCREW	21-802	1
42	R.F. BELT (Ø24×0.8×Ø28)	21-610	1
43	METAL HEAD PLATE	21-078	1
44	FLYWHEEL ASSY	21-063	1
45	REEL BASE	21-064	1
46	T GEAR PLATE	21-007	1
47	T GEAR	21-237	1
48	T.G. PLATE SP.	21-818	1
49	F.F. GEAR	21-236	1
50	(R) BACK TENSION SP(L)	21-328	1
51	SUPPLY REEL ASSY	21-04-01	1
52	TAKE-UP REEL ASSY	21-03-01	1
53	REC SAFE LEVER	338-022	1
54	(L) BACK TENSION SP.(R)	21-327	1
55	MOTOR B.K.T.	21-004	1
56	MOTOR RUBBER	21-001	2
57	MOTOR SCREW	21-801	2
58	MOTOR PULLEY	21-220	1
59	MAIN BELT (Ø53×Ø70)	21-611	1
60	SAFELY STOPPER	21-233	1
61			
62	EJECT LEVER	21-238	1
63	EJECT LEVER SP.	21-315	1
64	PACK SP.	21-006	1
65			
66	R/P HEAD	BT-6210	1
67	E HEAD	67-NM	1
68	MOTOR	MPJ12U241	1
69			
70			
71	(C) TAPPING SCREW 2×3	TC-203	2
72			
73	BASE SCREW (P) 2×4	21-802	5
74			
75			
76	SCREW (M2×8)	I-208	2
77	SCREW (M2×7)	I-207	1
78	SCREW (M2×7)	"	3
79	E RING (Ø3.2)	E-300	1
80	KNOB	21-226A	1
81			
82	P WASHER 1.2×3×0.4 (CUT)	PW-004C	3
83	PWASHER 1.6×3×0.3 (CUT)	PW-003C	1
84	NYLON WASHER 2.1×3×0.5	NW-005	1
85	WASHER 2.1×6×0.3	SW-002	1
86			
87			
88	FRAME S	21-029	1
89	KNOB SHAFT	21-330	1
90	SPRING WASHER	SW-002	1
91	SCREW	I-202	1
92	REC PUSH PLATE	338-052	1
93			
94			
95			
96			
97			
98			
99			
100			

WEI CHIEN ELECTRIC CROP.


IC101
LA1260
IC102
LA3361
IC201
AN7312
IC202 LA4260
IC301
AN 5151
IC302
LA7710
TV TUNER
ROD ANT.
EXT ANT. JACK
MIC
ERASE
A.C. MAINS
EXT DC JACK
FUSE
LEAF SW
ST. INDICATOR
POWER INDICATOR
VOL1
VOL2
CONTRAST
BRIGHTNESS
H-HOLD
V-HOLD
V-HEIGHT
RF AGC
B+ADJUST
SOUND
TANK
SP (L)
SP (R)
D.Y.
Q101 C930
Q102 C930
Q201 ED1702
Q303 C1317
Q305 2SD804HP
Q306 C1317R
Q307 C1317
Q402 BD435
Q403 C1317
Q404 C1317
Q405 A719R
Q406 C1317R
Q407 6V2
Q408 C1573A
D101 IN4148
D102 1S2638
D103 IN4148
D105 IN4148
D301 MA858
D302 MA858
D303 5508
D305 10V
D306 IN4148
D307 RC2
D308 FR157
D309 RC2
D310 MA 150
D312 12V
D401—404 IN4002
D405 IN4002
D406 IN4002
D407 6V2
D408 IN4148
D409 IN4148
D410 IN4148
D411 IN4002
CF101 10.7
CF102 455/465
CF301
CF302
T101
T102
T103
T104
T301
T302
T303 EI-14
T304
T305
T306
T307
T401
L101
L102
L103
L104
L105
L106
L107
L201—39m
L202—39m
L203 22μH
L204
L401 22μH
CT101
CT102
CT103
CT104
CT105 20P
CT106 20P
S101-1
S101-2
S101-3
S101-4
S201-1
S201-2
S201-3
S201-4
S201-5
S201-6
S201-7
S202-1
S202-2
S202-56
S203-1
S203-2
S301
S302-1
S302-2
S302-3
S302-4
S401
S402
S403-1
S403-2
TV Audio
RR
TV
RL
R
ON
OFF
A.C. DC
B/G
Secam
TV Audio
1/2W
NOTE :
1 ALL CAPACITORS ARE IN μF UNLESS OTHERWISE NOTED .
ALL CAPACITORS ARE 50WV UNLESS OTHERWISE NOTED .
2 CAPACITOR NOT SPECIFICALLA DESIGNATED ARE CERAMIC CAPACITORS .
2a ELECTROLYIC CAPACITOR .
2b BI-POLAR ELECTROLYIC CAPACITOR .
2c TANTALUM CAPACITOR .
2d MYLAR CAPACITOR .
2e METALLIZED POLYESTER .
2f POLYESTOR FILM CAPACITOR .
2g POLYPROPYLENE CAPACITOR
3 RESISTORS ARE IN OHM 1/4 WATT UNLESS OTHERWISE NOTED .
4 DC VOLTAGE ARE MEASURED FROM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER .
5 WAVE-FORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONDITIONS [MONOSCOPE PATTEN]
6 THIS CIRCUIT DIAGRAM IS SUBJECT TO WITHOUT PRIOR NOTICE .
SAFTY INSTRUCTION :
1 NO CHANGE SHOULD BE MADE TO THE ORIGINAL DESIGN .
2 COMPONENT TO BE REPLACED SHOULD BE REPLACED WITH EXACT FACTORY REPLACEMENT PART IF A SUBSTITUTE MUST BE USED BE SURE ITS QUALITY AND SPECIFICATION IS IDENTICAL TO THE ORIGINAL PART .
3 THE USED OF UNAUTHORIZED SUBSTITUTE PARTS MAY CREATE A SHOCK , FIRE OR OTHER HAZARD .
4 SERVICE PERFORMANCE SHOULD BE PERFORMED BY QUALIFED PERSONNEL ONLY .
5 BE SURE TO SUPPLY A CORRECT A.C. VOLTAGE .
6 DANGEROUS VOLTAGES CAPABLE OF CAUSING DEATH ARE PRESENT IN THIS INSTRUCTION USE EXTREME CAUSTION WHEN HANDLING , TESTING AND ADJUSTING .
7 COMPONENT WITH MARK ⚠ TO BE SAFTY INDICATION .
64μs
2V P-P
64μs
1.8V P-P
64μs
20ms
0.7V P-P
20 ms
16V P-P
64 μs
3V P-P
TITLE SCHEMATIC DIAGRAN
MODEL 3 3 : 8
SYSTEM
DRAW NO
COUNTRY
DATE
DRAWN
CHECKED
APPR